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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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09/805,958

03/14/2001

Mark Earnshaw

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7590

01/26/2005

SHAPIRO COHEN

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OTTAWA, ON K1P6P1

CANADA

EXAMINER

HOANG, THAI D

ART UNIT

PAPER NUMBER

2667

DATE MAILED: 01/26/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	09/805,958	EARNSHAW ET AL.	
	Examiner	Art Unit	
	Thai D Hoang	2667	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 03 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on Application filed on 03/14/2001.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-75 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1,2,8-10,16-20,24,25,31-34,38-42,46-50,54,56-59,64-66,70-72 and 75 is/are rejected.
- 7) ☒ Claim(s) 3-7,11-15,21-23,26-30,35-37,43-45,51-53,55,60-63,67-69,73 and 74 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Claim Objections

Claims 2, 6-7, 11, 53, 64 and 69 objected to because of the following informalities:

There is no period at the end of the claims 2, 6-7, 11, 64 and 69.

Claim 53, the statement "A method as in claim 51, including the step of: retransmitting, in 52 to receipt..." is not clear.

Appropriate correction is required.

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

Claims 1-2, 8-10, 16-20, 24-25, 31-34, 38-42, 46-50, 54, 56-59, 64-66, 70-73 and 75 are rejected under 35 U.S.C. 102(e) as being unpatentable by Gerendai et al, US Patent No. 6,629,285.

Regarding claims 1, 10, 24, 41 and 57, Gerendai discloses a method and system for transmitting data between a sender and a receiver. Gerendai discloses the sender transmits data to the receiver. If the data has been received, the receiver sends acknowledgement messages to the sender. Otherwise, the receiver sends at least one

negative acknowledgement to the sender, and the sender retransmits to the receiver the identified one or more data packets after a predetermined period of time; figs. 3-4, col. 2, lines 19-36.

Regarding claims 2, 42 and 58, Gerendai teaches that the sender waits for $\frac{1}{2}$ round trip delay for retransmitting; col. 2, line 3.

Regarding claims 8, 16, 31, 47, 56 and 75, Gerendai discloses in figures 3-4 the sender retransmits missing packet based on sequence number in the NACK message sent by receiver; col. 4, lines 38-col. 5, line 16.

Regarding claims 9, 17, 32, 38-40, 46, 54, 64 and 70-72, Gerendai discloses a NACK message lists not only the missing data packets, but also the highest packet sequence number of the data packets received by the receiver. Based on this message, the sender resends the missing packet to the receiver; col. 4, lines 6-37.

Regarding claims 18, 25, 48 and 59, since the sender in the system disclosed by Gerendai could be able to retransmit the missing data packets to the receiver; therefore, it inherently comprises a buffer to store transmitted data packets for retransmitting the missing data packets to the receiver; abstract, figures 3-4 col. 2, lines 25-38, , col. 4, line 12- col. 5, line 16.

Regarding claims 19-20, 33-34, 49-50 and 65-66, Gerendai discloses that each transmitted data packet associates with a timer to measure an elapsed time after transmission the data packet for comparing with a predetermined time interval in order to make decision for retransmission the missing data packet; abstract, figures 3-4 col. 2, lines 25-38, col. 3, lines 49-55. The timer in the Gerendai's system is inherently

cancelled if the data packet has been successfully received because it is not necessary for monitoring the data packet by that time.

Allowable Subject Matter

Claims 3-7, 11-15, 21-23, 26-30, 35-37, 43-45, 51-53, 55, 60-63, 67-69 and 73-74 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

Conclusion

The following references are cited to further show the state of the art with respect to the application:

US Patent No. 6,021,124 A, Haartsen discloses "Multi-channel automatic retransmission query (ARQ) method."

US Patent No. 6,330,435 B1, Lazraq et al discloses "Data packet discard notification."

US Patent No. 6,621,796 B1, Miklos discloses, "Discard mechanism for selective repeat automatic repeat request."


Any inquiry concerning this communication or earlier communications from the examiner should be directed to Thai D Hoang whose telephone number is (571) 272-3184. The examiner can normally be reached on Monday-Friday 10:00am-18:30pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Chi Pham can be reached on (571) 272-3179. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Art Unit: 2667

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Thai Hoang


CHI PHAM
SUPERVISORY PATENT EXAMINER
TECHNOLOGY CENTER 2200 1/24/05